



13. (New) The process according to claim 11, wherein cobalt is present in an electrolyte in oxidation state II.

14. (New) The process according to claim 11, wherein cobalt is present in a coordinated form.

15. (New) The process according to claim 14, wherein cobalt is coordinated with a solutant or solvent compound that has a high donor number.

16. (New) The process according to claim 15, wherein the solutant or solvent compound comprises an atom having a high donor number, selected from the group consisting of atoms of the nitrogen column.

17. (New) The process according to claim 11, wherein cobalt is coordinated with a specific ligand.

18. (New) The process according to claim 17, wherein the ligand comprises a function selected from the group consisting of pyridine, nitrile, phosphine, stibine and imine functions.

19. (New) A composition for electrolytic use, comprising a cobalt salt, a zinc salt, a solvent and a cobalt ligand.

20. (New) A process for the electrolytic synthesis of an organozinc compound, comprising the step of subjecting to an electrolysis on an inert cathode a composition comprising a cobalt salt, a zinc salt, a solvent, a cobalt ligand, and an organic halide.

21. (New) A process according to claim 20, wherein the organozinc compound is an aromatic or vinyl organozinc compound.

22. (New) An aromatic organozinc compound comprising:

A<sup>2</sup>  
Cont

- an sp<sup>2</sup> carbon atom,
- at least one aniline group not more than monosubstituted,
- an SO<sub>2</sub> group, and
- a zinc-bearing function,

wherein the aniline group, the SO<sub>2</sub> group, and the zinc-bearing function are bounded to the sp<sup>2</sup> carbon atom.

23 [New] An aromatic organo zinc compound according to claim 22, wherein the sp<sup>2</sup> carbon atom is comprised in an aromatic group.